CLAIMS

[1] A method for manufacturing a molding with a core by using compression molding means having an upper punch and a lower punch which are arranged in the vertical direction of a die, both of the upper punch and the lower punch having a double structure comprising a center punch and an outer punch surrounding the outer periphery of the center punch, and being slidable and capable of a compressing operation; the method comprising the steps of supplying molding material for the core and molding material for the outer layer respectively, the steps of compression-molding the molding material for the core and/or the molding material for the outer layer, and the step of compression-molding the whole molding with a core, wherein: the step of supplying the molding material includes the step of supplying the molding material for the core and the subsequent step of supplying the molding material for the outer layer; the step of supplying and filling the molding material for the outer layer is performed until a tip of the lower center punch finally takes a position protruding from a tip of the lower outer punch; and the step of compression-molding the whole molding with a core is performed with the tips of the lower center punch and the lower outer punch aligned with each other.

[2] The method according to claim 1, wherein the step of supplying the molding material for the outer layer is not

performed prior to the step of supplying the molding material for the core.

[3] The method according to claim 1, wherein the step of supplying the molding material consists of two steps including the step of supplying the molding material for the core and the subsequent step of supplying the molding material for the outer layer.

[4] The method according to claim 1, wherein the step of supplying the molding material for the outer layer is performed prior to the step of supplying the molding material for the core.

[5] The method according to claim 1, wherein the step of supplying the molding material consists of: the step of supplying the molding material for the outer layer; the subsequent step of supplying the molding material for the core; and the further subsequent step of supplying the molding material for the outer layer.

[6] The method according to claim 1, wherein the lower outer punch is raised to align the tip thereof with the tip of the lower center punch from the position in which the tip of the lower center punch is protruded from the tip of the lower outer punch after the step of supplying the molding material for the outer layer posterior to the step of supplying the molding material for the core.

[7] The method according to claim 1, wherein the lower center punch is lowered to align the tip thereof with the tip

of the lower center punch from the position in which the tip of the lower center punch is protruded from the tip of the lower outer punch after the step of supplying the molding material for the outer layer posterior to the step of supplying the molding material for the core.

[8] The method according to claim 1, wherein the lower center punch is lowered while the lower outer punch is raised to align the tip thereof with the tip of the lower center punch from the position in which the tip of the lower center punch is protruded from the tip of the lower outer punch after the step of supplying the molding material for the outer layer posterior to the step of supplying the molding material for the core.

[9] The method according to claim 6 or 8, wherein the operation of aligning the tips of the lower outer punch and the lower center punch with each other is performed with the upper center punch and upper outer punch pressing the molding material in the die after the step of supplying the molding material for the outer layer posterior to the step of supplying the molding material for the core.

[10] The method according to claim 7, wherein the process of pressing the molding material in the die by the upper center punch and the upper outer punch is performed with the tip of the lower center punch in the position protruding from the tip of the lower outer punch after the step of supplying the molding material for the outer layer posterior to the step

of supplying the molding material for the core.

[11] The method according to claim 6, wherein the process of pressing the molding material in the die by the upper center punch and the upper outer punch is not performed until the tip of the lower center punch and the tip of the lower outer punch become aligned with each other after the step of supplying the molding material for the outer layer posterior to the step of supplying the molding material for the core.

[12] A method for manufacturing a molding with a core by using compression molding means having an upper punch and a lower punch which are arranged in the vertical direction of a die, both of the upper punch and the lower punch having a double structure comprising a center punch and an outer punch surrounding the outer periphery of the center punch, and being slidable and capable of a compressing operation; the method comprising: a core supply step of supplying molding material for the core into a space defined above the lower center punch and surrounded by the lower outer punch; a core molding step of compression-molding the molding material for the core supplied in the preceding step; an outer layer supply step of supplying molding material for the outer layer into a space defined above and around the molding in the die molded in the preceding step until a tip of the lower center punch finally takes a position protruding from a tip of the lower outer punch; and a whole molding step of compression-molding the core molding and the molding material for the outer layer

with the tips of the lower outer punch and the lower center punch aligned with each other.

[13] The method according to claim 12, wherein an outer layer supply step of supplying the molding material for the outer layer into the space defined above the lower center punch and surrounded by the lower outer punch is performed prior to the core supply step.

[14] The method according to claim 12, wherein an outer layer supply step of supplying the molding material for the outer layer into the space defined above the lower center punch and surrounded by the lower outer punch is not performed prior to the core supply step.

[15] The method according to claim 12, wherein the lower outer punch is raised to align the tip thereof with the tip of the lower center punch from the position in which the tip of the lower center punch is protruded from the tip of the lower outer punch after the outer layer supply step posterior to the core molding step.

[16] The method according to claim 12, wherein the lower center punch is lowered to align the tip thereof with the tip of the lower outer punch from the position in which the tip of the lower center punch is protruded from the tip of the lower outer punch after the outer layer supply step posterior to the core molding step.

[17] The method according to claim 12, wherein the lower center punch is lowered while the lower outer punch is raised

to align the tips of the lower outer punch and the lower center punch with each other from the position in which the tip of the lower center punch is protruded from the tip of the lower outer punch after the outer layer supply step posterior to the core molding step.

[18] The method according to claim 15 or 17, wherein the operation of aligning the tips of the lower outer punch and the lower center punch with each other is performed with the upper center punch and upper outer punch pressing the molding material in the die after the outer layer supply step posterior to the core molding step.

[19] The method according to claim 16, wherein the process of pressing the molding material in the die by the upper center punch and the upper outer punch is performed with the tip of the lower center punch in the position protruding from the tip of the lower outer punch after the outer layer supply step posterior to the core molding step.

[20] The method according to claim 15, wherein the process of pressing the molding material in the die by the upper center punch and the upper outer punch is not performed until the tips of the lower outer punch and the lower center punch become aligned with each other after the outer layer supply step posterior to the core molding step.